

WHAT IS CLAIMED IS:

1. A transmitting apparatus for data copy protection, comprising:
a control information setting unit which sets control information for the data copy protection;
a data encrypting unit which encrypts data by using different encryption processes according to respective control modes corresponding to the set control information; and
a data transmitting unit for transmitting the encrypted data from the data encrypting unit.
2. A receiving apparatus for data copy protection, comprising:
a data receiving unit for receiving encrypted data;
a control information extracting unit which extracts control information for the data copy protection from the received data; and
a data decrypting unit which decrypts the encrypted data by using different decryption processes according to respective control modes corresponding to the extracted control information.
3. The receiving apparatus as claimed in claim 2, wherein the encrypted data comprises hierarchically encrypted data.
4. The apparatus as claimed in claim 1 , wherein the control information comprises copy control information (CCI).

5. The apparatus as claimed in claim 1, wherein the control modes comprise a first mode in which copying is not permitted, a second mode in which copying is permitted once and thereafter additional copying is not permitted, and a third mode in which copying is permitted but the data is encrypted.

6. The apparatus as claimed in claim 3, wherein the receiving apparatus further comprises a medium-reproducing device for providing AV stream information to a user.

7. A system for data copy protection, comprising:

a transmitting apparatus which provides control information for the data copy protection, encrypts data by using different encryption processes according to respective control modes corresponding to the control information, and transmits the encrypted data; and

a receiving apparatus which receives the transmitted encrypted data, extracts the control information from the received data, and decrypts the encrypted data by using different decryption processes according to the respective control modes corresponding to the extracted control information.

8. The system as claimed in claim 7, wherein the control information includes copy control information (CCI).

9. The system as claimed in claim 7, wherein the control modes comprise a first mode in which copying is not permitted, a second mode in

which copying is once permitted and thereafter additional copy is never permitted, and a third mode in which copying is permitted but the data is encrypted.

10. The system as claimed in claim 7, wherein the receiving apparatus further comprises a medium-reproducing device which provides AV stream information to a user.

11. A data copy protection method, comprising:

setting control information for data copy protection, encrypting the data by using different encryption processes according to respective control modes corresponding to the set control information, and transmitting the encrypted data;

receiving the transmitted encrypted data and extracting the control information from the received data; and

decrypting the encrypted data by using different decryption processes according to the respective control modes corresponding to the extracted control information.

12. The method as claimed in claim 11, wherein the control information includes copy control information (CCI).

13. The method as claimed in claim 11, wherein the control modes comprise a first mode in which copying is not permitted, a second mode in which copying is permitted once and thereafter additional copying is not

permitted, and a third mode in which copying is permitted but the data is encrypted.

14. A recording medium comprising data including control information for copy protection, wherein the data is encrypted by using different encryption processes according to respective control modes corresponding to the control information.

15. The recording medium as claimed in claim 14, wherein the control information comprises copy control information (CCI).

16. The recording medium as claimed in claim 14, wherein the control modes comprise a first mode in which copying is not permitted, a second mode in which copying is permitted once and thereafter additional copying is not permitted, and a third mode in which copying is permitted but the data is encrypted.

17. The apparatus as claimed in claim 2, wherein the control information comprises copy control information (CCI).

18. The apparatus as claimed in claim 2, wherein the control modes comprise a first mode in which copying is not permitted, a second mode in which copying is permitted once and thereafter additional copying is not permitted, and a third mode in which copying is permitted but the data is encrypted.

19. An encrypting apparatus for data copy protection, comprising a data encrypting unit which encrypts data by using different encryption processes according to respective control modes corresponding to set control information for the data copy protection.

20. The apparatus as claimed in claim 19, wherein the data encrypting unit comprises encryption modules corresponding to the control modes.

21. A decrypting apparatus for data copy protection, comprising a data decrypting unit which decrypts encrypted data by using different decryption processes according to respective control modes corresponding to set control information for the data copy protection.

22. The apparatus as claimed in claim 21, wherein the data decrypting unit comprises decryption modules corresponding to the control modes.

23. The apparatus as claimed in claim 22, wherein decryption modules include a data encryption standard (DES) decryption module, a double-DES decryption module, and a triple-DES decryption module.

24. A decrypting apparatus for data copy protection, comprising:
a code checking unit which checks copy control information (CCI) code of received data; and

a decryption module which inserts a same code as the CCI code into one of a most significant bit (MSB) and a least significant bit (LSB) of a key code for use in decrypting the data, in response to the CCI code being one of predetermined codes for controlling copying of the data.

25. A system for data copy protection, comprising:

an encrypting unit which encrypts data by using different encryption processes according to respective control modes corresponding to set control information for the data copy protection; and

a decrypting unit which decrypts the data by using different decryption processes according to the respective control modes corresponding to the set control information for the data copy protection.

26. The system as claimed in claim 25, wherein the respective control modes are established for the data so as to prevent unauthorized copying of the data through modification of the set control information.

27. A method of encrypting data for data copy protection, the method comprising encrypting the data using different encrypting processes according to respective control modes corresponding to set control information for the data copy protection.

28. A method of decrypting encrypted data for data copy protection, the method comprising decrypting the encrypted data using

different decrypting processes according to respective control modes corresponding to set control information for the data copy protection.

29. A data copy protection method for data, the method comprising:

encrypting the data using different encrypting processes according to respective control modes corresponding to set control information for the data copy protection; and

decrypting the encrypted data using different decrypting processes according to the respective control modes corresponding to the set control information for the data copy protection.

30. An information storage medium comprising:

data; and

control information for data copy protection, wherein the data is encrypted/decrypted using different encryption/decryption processes according to respective control modes corresponding to the control information.

31. The information storage medium as claimed in claim 30, wherein the respective control modes are established for the data so as to prevent unauthorized copying of the data through modification of the control information.